gamma-tocopherol by HPLC µg/g

Fraction I a)

Tr

Fraction II b)

Tr

delta-tocopherol by HPLC µg/g

Fraction I a)

N.D.

Fraction II b)

N.D.

all-trans retinol by HPLC (IU)

Fraction I a)

395,57

Fraction II b)

440,47

cholecalciferol by HPLC (IU)

Fraction I a)

N.D.

Fraction II b)

N.D.

Data from Professor Robert Ackman's laboratory, Canadian Institute of Fisheries Technology,

Halifax, Nova Scotia.

Data expressed per gram of krill oil.

^{a)}: Extraction made with a sample-acetone ratio of 1:6 (w/v), incubated 2h at 4°C.

b): Extraction made with a sample-ethyl acetate ratio of 1:2 (w/v), incubated 30 min at 4°C, following a first extraction with acetone.

TR = trace

N.D. = not detected

Conversion: Vitamin

alpha-tocopherol

mg/g oil x 1,36 = International Unit

All-trans retinol

 μ g/g ÷ 0,3 = International Unit

TABLE 17. ASTAXANTHIN AND CANTHAXANTHIN CONTENT OF KRILL OIL (E. pacifica)

Asthaxantin (μg/g oil) Fraction I ^{a)} 93,1 Fraction II ^{b)} 121,7

Canthaxanthin (µg/g oil)

Fraction I a)	270,4
Fraction II b)	733,0

Data from Professor Robert Ackman's laboratory, Canadian Institute of Fisheries Technology,

Halifax, Nova Scotia.

TABLE 18. OPTIMAL CONDITIONS FOR LIPID EXTRACTION OF AQUATIC ANIMAL TISSUES (suggested procedure)

STEP .	CONDITIONS
Grinding (if particles > 5mm)	4°C
Lipid extraction	sample-acetone ratio of 1:6 (w/v) 2h (including swirling 20 min) 4°C
Filtration	organic solvent resistant filter

a): Extraction made with a sample-acetone ratio of 1:6 (w/v), incubated 2h at 4°C.

b): Extraction made with a sample-ethyl acetate ratio of 1:2 (w/v), incubated 30 min at 4°C, following a first extraction with acetone.

under reduced p	ressure
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Washing sample-acetone ratio of 1:2 (w/v)

pure and cold acetone

Filtration organic solvent resistant filter

under reduced pressure

Evaporation under reduced pressure

Oil-water separation 4°C

Lipid extraction <u>sample: ethyl acetate</u> ratio of 1:2 (w/v)^{a)}

pure ethyl acetate

30 min 4°C b)

Filtration organic solvent resistant filter

under reduced pressure

Evaporation under reduced pressure

TABLE 19: PROTEOLYTIC ACTIVITY OF KRILL RESIDU USING LACTOSERUM AS THE SUBSTRATE, AT 37 °C, PH 7.0 FOR A RATIO ENZYME:SUBSTRATE OF 1:43

Time Amino acids released Enzymatic rate Specific enzymatic (min) (µmoles) (µmoles/min) activity

a): Ethanol can be replaced by isopropanol, *t*-butanol or ethyl acetate.

b): 25 °C when using *t*-butanol.